

WHAT IS CLAIMED IS:

1. A surface acoustic wave device comprising:
a piezoelectric substrate;
5 an electrode unit for exciting a surface acoustic wave
on a surface of said piezoelectric substrate; and
reflectors for reflecting the surface acoustic wave at
said reflectors, wherein:
said electrode unit comprises interdigital electrodes
10 including a thin-film layer formed of copper or a copper
alloy, and a connecting electrode connected to each of the
interdigital electrodes; and
when the wavelength of the surface acoustic wave is
indicated by λ , and when the thickness of the interdigital
15 electrodes is indicated by H, the standardized thickness H/λ
of the interdigital electrodes ranges from 0.045 to 0.070,
and said piezoelectric substrate is a rotated Y-cut LiTaO_3
substrate whose cut angle θ from the Y axis to the Z axis
around the X axis ranges from 52.0° to 58.0° , the surface
20 acoustic wave propagating in the direction of the X axis of
said piezoelectric substrate.
2. A surface acoustic wave device according to claim 1,
wherein the standardized thickness H/λ of the interdigital
25 electrodes ranges from 0.050 to 0.065, and said piezoelectric
substrate is a rotated Y-cut LiTaO_3 substrate whose cut angle
 θ from the Y axis to the Z axis around the X axis ranges from
 52.4° to 58.0° .

3. A surface acoustic wave device comprising:
a piezoelectric substrate;
an electrode unit for exciting a surface acoustic wave
5 on a surface of said piezoelectric substrate; and
reflectors for reflecting the surface acoustic wave at
said reflectors, wherein:
said electrode unit comprises an interdigital electrodes
including a thin-film layer formed of copper or a copper
10 alloy, and a connecting electrode connected to each of the
interdigital electrodes; and
when the wavelength of the surface acoustic wave is
indicated by λ , and when the thickness of the interdigital
electrodes is indicated by H, the standardized thickness H/λ
15 of the interdigital electrodes ranges from 0.050 to 0.065,
and said piezoelectric substrate is a rotated Y-cut LiTaO_3
substrate whose cut angle θ from the Y axis to the Z axis
around the X axis ranges from 50.0° to 59.5° , the surface
acoustic wave propagating in the direction of the X axis of
20 said piezoelectric substrate.